A STUDY OF ASSOCIATION OF RACE AND COLLEGE ADMISSIONS OPTIONS AND DIFFERENCE IN FIRST YEAR COLLEGE GRADE POINT AVERAGE BY RACE

By

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This study examined college admissions criteria and first year college grade point average (FYGPA) at the end of the student's 2nd semester in college. This study determined there was a difference between student success indicators, how the students were admitted to a large public institution. The majority of all students were admitted by the Orange admissions option except Black students. Black students comprised the largest amount of students admitted by the Brown, Silver, and Gray admissions options. There was also a difference in students FYGPA means in college examined by race/ethnicity, especially among Black students. White students were the only racial/ethnic group with a FYGPA mean higher than the average mean among all the races. Black students FYGPA mean was significantly different from all other racial/ethnic groups.

TABLE OF CONTENTS

Chapter Page

LIST OF TABLES

Table Page

CHAPTER I

INTRODUCTION

Year to year researchers attempt to determine the best predictor of a college student's ability to succeed. Approximately 3.4 million students will graduate from high school in 2012-13, 68.1% of those high school graduates will enroll into college immediately following graduation, and one-third of those college freshmen fail to re-enroll their second year of college (Hoffman, 2003). Many institutions of higher education strive to recruit and retain extraordinary students, ultimately hoping that these students will become successful at their respective institution. Universities desire to have students who become active alumnus, succeed in the world of work, and impact society by becoming productive citizens. From one university to another, the ability to succeed at a university is measured in a variety of ways. Research findings on ability to succeed in college conflict throughout the years. Some indicated high school grade point average (HSGPA) to be a better predictor (Allen & Sconing, 2005; Geiser & Santelics, 2007; Noble & Sawyer, 2002) and other findings determined college entrance exams as a better predictor.

Universities measure a student's ability to succeed ranging from using ACT scores, SAT scores, HSGPA, rank in class, and noncogntive factors including essay responses. College entrance exams are among other predictors of success shape admissions requirements. Affirmative Action also influences options for admissions to universities and has historically been used as a route to increase admissions for underrepresented students (Yun & Marin, 2009). While the national ACT score average in 2012 was 21.1, underrepresented groups including Blacks, Latinos, and Native Americans averaged scores of 17, 18.9, and 18.4 respectively, which are all below the national average (ACT, 2012).

In 2012, the amount of national test takers increased to over 1.66 million students and underrepresented students test scores lagged behind the national average. FairTest, a center aiming to advance quality education and equal opportunity, totaled 850 four-year colleges and institutions that avoid using the ACT or SAT to admit a generous amount of undergraduate degree seeking applicants. The National Center for Fair and Open Testing compiles a list of schools that have alternative admissions options that are test optional. The organization "works to end the misuses and flaws of testing practices that impede [the goals of] advancing quality education and equal opportunity by promoting fair, open, valid and educationally beneficial evaluations of students, teachers and schools" (Fairtest, 2013, para. 1).

More frequently highly selective institutions integrate holistic admissions options, which considers more than academic information. For many large public institutions, holistic admissions is strategically impossible due to the inability to employ enough staff to manage the seemingly insurmountable amount of admissions applications to review

students holistically for admissions. Institutions continue to use college entrance exams because the tests provide a numerical number easy to review and mange compared to examining many different factors included in a holistic admissions approach (NACAC, 2008). The ACT and SAT are also a cost efficient way to evaluate students for admissions (NACAC, 2008).

Criticism of college entrance exams continue to thrive. Some of the strong criticisms range from unfairness toward low income students (Alon, 2009), test-preparation opportunity disadvantages (Buchman, Condron, & Roscigno, 2010), wealth, and race/ethnicity biases (Geiser & Santelices, 2007; NACAC, 2008; Rosner, 2012; Santelices & Wilson, 2010). In addition to underrepresented students ACT scores lagging behind the national average, other strong criticisms exist among underrepresented students and low-income high school students regarding access to higher education (Astin & Oseguera, 2004). During the 1960s and 1970s, the accessibility and equity of higher education significantly improved. As accessibility to higher education improves, many undergraduate institutions are attempting to offset the lack of information Black and Latino students are not receiving by launching major access outreach efforts (Astin & Oseguera, 2004), in addition to national higher education initiatives.

All students must adjust to the academic obligations, social demands and responsibilities of college, but for underrepresented students their adjustment to higher education is complicated by woeful lack of preparation. Many of these students are uninvolved in college preparatory courses and are more likely to need remedial courses, so they are less prepared for college compared to their White and higher-income peers (Green, 2006; National Center for Education Statistics, 2012b). For Latinos, the college

application process can be daunting and families may not possess the basic knowledge about the college transition (Marsico & Getch, 2009). A further challenge for Latino parents is assisting their child in determining how to select a college (Marsico & Getch, 2009).

When entering their first year of college, students have reached a new phase of their lives. The new students begin to engage in the various activities and opportunities. Student engagement has been related to a student's academic success and persistence. Engagement can include components such as extra-curricular involvement, interacting with faculty and fellow college students, and academic experience (Kuh, 2009). With technological and social media advancements, both are now an integral component of college students daily live and some of their class activities. Some of the literature concludes some social media outlets are beneficial to a student's academic success and other literature differs. Social media such as Facebook can negatively impact students' academic success (Junco, 2012; Kirschner & Karpinski, 2010). Although when Twitter is used in class related activities students are more engage in class and are successful academically (Junco, Heibergert, & Loken, 2011).

Some students are excellent standardized test takers, others linger behind, college entrance exams continually receive criticism, and barriers exist for underrepresented students. Fortunately, institutions have different admissions options that allow students with applications that fall below general admissions requirements an opportunity for acceptance to a university. When students arrive to college, the opportunity to engage in activities can positively or negatively impact a student's college GPA. College entrance exams scores are used as an integral component of the admissions process among

universities and university want their students to be success at their institution. Over the years scrutiny toward universities continues regarding their evaluation practices and methods for predicting student's success and universities continue to examine student success.

Statement of Problem

Postsecondary institutions are concerned with a student's ability to succeed at their university from one year to the next. Researchers, post-secondary institutions, and national organizations are centralizing efforts on strategizing the best practices for admitting students who are prepared to succeed in college classes and must reflect upon admission requirements. The notion of inquiry was to determine the difference between student's success indicators, how students were admitted to a large public institution in Oklahoma and first year grade point average (FYGPA) in college (especially among underrepresented students).

This study provided more awareness concerning first-time underrepresented freshmen differences between success indicators based on how students were admitted into a university. The study attempted to fill the void in the literature that exist comparing student's success indicators based on how they were admitted into a university.

Significance of Study

Admission to a university is the first step in providing a student an opportunity to receive a four-year degree. Upon completing a degree a student can benefit from the incremental salary earnings created through obtaining a college degree. Earnings for college degree-holders vary by race, but earnings for college graduates of all race/ethnicities are much greater when compared to earning potential solely with a high

school diploma. Between Whites, Blacks, and Latinos, in 2009 earnings gradually increased by race. According to the U.S. Department of Commerce (2012), average earnings totaled over $57,000 for Whites with a bachelor's degree. Comparatively, Blacks' and Latinos' average earnings totaled $47,799 and $49,017, respectively. With only a high school diploma, Latinos had the lowest earnings at $25,998 among the underrepresented groups.

Previous studies dealt with individualizing predictors of success in college rather than specific admissions options (Geiser & Santelics, 2007; Korbin & Michel, 2006; Kobrin, Patterson, Shaw, Mattern, & Barbuti, 2008; Noble & Sawyer, 2004; Sackett, Kuncel, Beatty, Rigdon, Shen, & Kiger, 2012). Professional organizations encourage institutions to also examine the predictability of their admissions options (NACAC, 2008). Using university admissions options will help identify which admissions options are more accurately predicting success among specific racial groups and which admissions options need enhancing because students are not succeeding academically.

Much of the research available provides empirical results of which predicative variable is a better predictor rather than considering how the predictor would influence admissions options and a student's success based on the admissions criteria. The focus and purpose of this study was to determine whether there was an association between how a student was admitted to State University (SU) and race/ethnicity. The study also compared FYGPA means and race/ethnicity. This study leads to additional insight on the association of admissions options and race/ethnicity and whether the admissions options need revamping to improve admission opportunities for students.

Methods

This study used a chi square and one-way ANOVA design. Data for the study was retrieved from the university used in this study. The retrieved data included 282 Black, 523 Native American, and 135 Latino and 4,665 White students. The categories for the chi squared analysis were race/ethnicity and admissions option. The independent variable of the one-way ANOVA was race/ethnicity and the dependent variable was first-year college grade point average (FYGPA) which measures success of the traditional first-time full-time freshmen.

Research Questions

1. To what extent, if any is there a relationship between the student's racial/ethnic identification and the admissions option under which the student was admitted to the university?
2. To what extent, if any is there relationship between the student's racial/ethnic identification and the student's GPA at the end of the student's 2nd semester at the university?

Delimitations and Limitations

The findings and validity of this research were specific to the institution involved in this study and were unable to be generalized with other post-secondary institutions. The study only included traditional, first-time full-time freshmen, enrolled at the institution during the 2009-2010 academic years.

CHAPTER II

REVIEW OF LITERATURE

Today at many universities, college entrance exams such as the ACT and SAT play a pivotal role in institutions' admissions decision-making processes. Still, institutions of higher learning continue to examine better methods of identifying college-bound students with the best chances of academic success (Gifford, Briceno-Perriott, & Mainzo, 2006). Beyond college entrance exam scores, other factors are considered for admissions. For instance, over time, colleges have revamped their admission criteria to enhance the diversity of the student body, which in some cases, has led to legal challenges. As a result, within recent decade's college admissions departments have come under increased scrutiny for their evaluation practices and methods for predicting student success.

This chapter will review the scholarly literature related to different aspects of college and admissions and factors that impact first year grade point average (FYGPA). It will first highlight the college admissions application. Next will be an overview of

affirmative action in higher education, which has impacted underrepresented groups over the years. The third section examines high school academic predictors of success in college admission processes followed by critiques of standardized testing. The chapter concludes with a brief review of student engagement and academic success.

College Admissions Application

Every year, millions of students graduate from high school and a significant number elect to continue their education at four-year colleges. Upon obtaining a college degree, earnings by race vary, but are much greater compared to an individual's earning potential with solely a high school diploma (U.S. Department of Commerce, 2012). However, students from underrepresented minority groups struggle to complete their college degrees. In recent years, the percent gap of completing 4-years of college has narrowed between underrepresented and majority groups; more underrepresented students are completing college.

Beyond a student taking a college entrance exam a key step to attend college is to complete a college application a student must complete an application to attend college. Depending on the institution, the admissions application materials needed for evaluation varies. The common admissions measures include high school grade-point average (HSGPA), course load, and the academic rigor of the high school (Betts, 2007; Noble & Camera, 2003). Other items considered in the admissions process include college entrance exam scores, essays, extracurricular activities, and letters of recommendation (Noble & Camera, 2003; Sternberg, 2012).

Factors of the College Application

In recent years, interviews have become an integral component at several small highly selective colleges (Allman, 2012; Hoover & Supiano, 2010; Sternberg, 2010). These schools typically enroll a small fraction of the nation's college students. Interviews at large institutions are logistically impossible to offer to all applicants (Allman, 2012). How the interviews are conducted and the weight the interview holds in an admissions decision varies by institution. Interviews for college admissions are conducted by admissions representatives, university faculty, alumni, in person, and sometimes via webcam using SKYPE.

In addition to interviews, letters of recommendation are required for some admissions applications. These letters are typically written by teachers, counselors, and organizational sponsors (Sternberg, 2010) and provide direct information about an applicant's character, ability, work ethic, former success, academic performance, and motivation. Similar to letters of recommendation, extracurricular activities can also be a major component of an admissions application (Sternberg, 2010). For some schools, it is a major component, but for others it has minimal weight on an admissions decision. Some universities use the Common Application, which requires students to submit extra-curricular activities among other items.

The Common Application is a standard admissions application with more than 400 participating member utilizing the form for college admission. Around the mid-1990s, most colleges utilized their own application. This meant college-bound students filled out multiple applications. Today, many colleges use the Common Application, which collects a wealth of information from students including personal information,

future plans, demographics, family, education, academics, extracurricular activities, and work experience (Sternberg, 2010; The Common Application, 2012).

In addition to the general questions on the Common Application, some colleges may require additional material such as an arts supplement, teacher evaluation, and midyear report. The member institutions have the opportunity to review all applicants holistically based on information collected from the Common Application. The holistic admissions consist of evaluating the entire applicant as opposed to solely reviewing a few components of empirical data (i.e. test score and GPA) (National Association for College Admission Counseling, 2008).

In addition to the Common Application, course load and academic profile are key components of the admissions evaluation. Admissions counselors/evaluators review students' HSGPA and courses taken, rigor of courses that may include Advance Placement (AP) classes, International Baccalaureate (IB) program coursework, and electives taken (Sternberg, 2010). Admissions counselors/evaluators may also consider students' involvement in extracurricular activities and determine students' academic success based on their high school involvement.

Some admissions evaluation practices also consider class rank, which is instituted by state policy. Class rank indicates how far a student is from the top of the high school class (Sternberg, 2010). In fact, HSGPA (Betts, 2007; Noble & Camera, 2003), college preparation courses, strength of curriculum, and college entrance exam scores (NACAC, 2008) are among the top four determinants of whether a student will be accepted into an institution (Betts, 2007; Noble & Camera, 2003). However, some high schools are discontinuing class rank in order to decrease the amount of academic pressure and

anxiety on high school students. This may disadvantage students in the college admissions process if a student is applying to a college that considers class rank (Betts, 2007; Sternberg, 2010).

Similar to class rank, high school grades reflect a student's level of motivation and are a key component in assessments for most institutions. GPAs demonstrate high school students' past behaviors, knowledge, motivation level, and work ethic (Sternberg, 2010). GPA is a strong predictor of future behaviors because it reflects past behaviors and indicates a level of academic mastery of a range of skills. One disadvantage of using the high school GPA is that the quality of education varies from high school to high school. This is commonly known as grade inflation.

A popular practice in college admissions is using ACT and SAT test scores as another application requirement (Noble & Camara, 2003; Sternberg 2010). Both tests measure skills applicable to being successful in college. The ACT and SAT provide a common metric between different schools and determine whether students have mastered foundational knowledge well enough to be ready to complete college level coursework (Atkinson & Geiser, 2009; Noble & Camara, 2003; Sternberg, 2010).

Since many universities accept both the ACT and SAT, to ensure students are reviewed equally for admissions, some institutions use a concordance to determine comparable scores for the tests (Noble & Camara, 2003). Developers of the tests encourage universities to use multiple factors besides college entrance exam scores in the admissions evaluation process (Noble, 2003; Noble & Camara, 2003).

Affirmative Action Influence on College Admissions

Over the years, affirmative action has influenced the admissions of underrepresented students in college. Furthermore, affirmative action cases in higher education play a pivotal role in admissions options; increasing diversity on college campuses and promoting opportunities for underrepresented students (Shea, 2003). Davis (2007) concluded, "From 1636 to 1866, the first 230 years of American higher education, American institutions graduated a maximum of 28 Black students" (p. 25). Since the early and mid-90s more minorities have consistently been enrolling in college (NCES, 2012a). Cases specific to affirmative action have assisted with admissions practices to determine the best policies for admitting minority and underrepresented students.

In spite of encountering significant legal and political challenges, affirmative action admissions standards have historically remained in force as a way of increasing admissions opportunities for underrepresented students (Yun & Marin, 2009). Using affirmative action supports institutions' diversity initiatives and helps maintain and enhance diversity in colleges across the nation although, eight states have banned affirmative action in public higher education institutions (Kahlenberg, 2012). In 2012, Oklahoma is the most recent state to ban affirmative action programs in education, employment, and contracting with the passage of State Question 759.

Affirmative Action Cases

Since the 1960s, the use of affirmative action in college admissions remains a controversial topic (Hinrichs, 2012; Long, 2004). The first ruling that affirmative action was constitutional in higher education admissions was the landmark *Bakke* case. Allan Bakke, a non-minority student applied to UC-Davis Medical School in 1973 and 1974

and was not admitted either year. Bakke was not the first qualified candidate denied admissions to the medical school. UC-Davis had an admissions option for an applicant to be admitted as a "special student," either as an affiliate of a minority group or economically and/or educationally disadvantaged. When Bakke was denied admissions to the medical school the second time he filed suit against the university (Yun & Marin, 2009).

The evaluation the medical school used was in violation of Title VI of the Civil Rights Act of 1964, which prohibits the consideration of race, ethnicity, and color in higher education (Conrad & Weerts, 2004; U.S. Department of Education, 2005; Yun & Marin, 2009). A lasting impact of the decision is that using numeric quotas and holding admissions slots with the intent of promoting diversity in higher education violates the 14th Amendment of the U.S. Constitution (Garrison-Wade & Lewis, 2004; Moses et al., 2009). Although the ruling in the *Bakke* case was divided, the Supreme Court indicated that affirmative action programs were constitutional and could be implemented legally (Long, 2004; Moses et al., 2009). *Bakke* set the tone for additional litigation related to affirmative action in higher education.

The University of Texas law school also encountered an affirmative action lawsuit. Cheryl Hopwood, a non-minority applicant, applied to the law school and felt she was discriminated against in the admissions process. In 1996, Hopwood sued the law school and the suit became the first successful challenge to an affirmative action admission programs since *Bakke* (Moses et al., 2009). The 5th Circuit ruled against race-conscious affirmative action policies in higher education, concluding that the achievement of a diverse student population was not legally attractive enough to justify

the university's admissions process (Moses et al., 2009; Yun & Marin, 2009). Moreover, race could be used in rendering admissions decisions only when universities were attempting to remedy the effects of institutional discrimination (Moses et al., 2009).

In 2003, the University of Michigan encountered two affirmative action suits *Gratz v. Bollinger* and *Grutter v. Bollinger.* Long's (2004) findings support that both cases reaffirm the *Bakke* decision. Jennifer Gratz, a non-minority student applied, but was denied admission to the University of Michigan in 1998. Gratz sued the university because of the institution's affirmative action admissions policies. The undergraduate admissions program used a point system in which the maximum amount of points an applicant could receive was 150, and prospective students needed a minimum of 100 points to qualify for admission.

The system allowed underrepresented minority groups such as Blacks, Latinos, and Native Americans an enhanced opportunity for admission to the university. The controversial component of the University of Michigan's admission practice included automatically awarding minority students 20 points for their race, while students with quality college entrance exam scores received 12 points. This was the universities attempted to implement an affirmative action admission practices beneficial for underrepresented students. However, the points allocated for race and college entrance exam score were not adequately balanced or fair.

Barbara Grutter also filed suit against Michigan's law school. The law school factored in race when considering minority applicants, as well as took into account students' academic ability, talents, life experiences, and potential to contribute to the learning environment (Davis, 2007). The *Gratz* and *Grutter* rulings once again reaffirmed

the *Bakke* decision to allow universities to continue using race as a factor in admissions, as long as the admissions system was not firm or habitual and highlighted the importance of holistically reviewing applications (Davis, 2007; Long, 2004; Moses et al., 2009; Orfield et al., 2007).

In response to *Hopwood*, part of the *Grutter's* ruling "…upheld the use of race-conscious admissions by the University of Michigan's law school – superseding the Hopwood ruling – but advised that colleges should engage in *serious, good-faith consideration of workable race-neutral alternatives* [emphasis added] before resorting to affirmative-action preferences" (Schmidt, 2008, p. 2). Ultimately, over the past six decades, affirmative action has been a consistent issue.

In 2012, *Fisher v. University of Texas* went before the U.S. Supreme Court. Abigail Fisher, a non-minority contested the use of race in college admission decisions. The plaintiff, a recent graduate of Louisiana State University filed suit against the University of Texas (UT) for illegal discrimination in her admission evaluation after being denied admissions in 2008. Fisher claims extra consideration was given to Black and Latino students in her applicant pool (The Chronicles of Higher Education, 2012). The student was inadmissible by the assured admission option of being in the top 10% of her high school graduation class. The Supreme Court ruled the *Fisher* case and cases such as this should be re-evaluated by the lower court (The Chronicles of Higher Education, 2013). This decision had minimal impact on existing laws related to affirmative action practices in higher education admissions. It is evident from the cases previously mentioned that universities attempted to implement race-based affirmative action admissions practices, although some of those practices were not upheld by the

Supreme Court. In the 1990's colleges' affirmative action admissions practices were challenged and overpowered by new bills, executive orders, and state propositions. Public universities in some states were forced to shift from race-based to race-neutral admission, although universities benefited from race-based admissions practices (Hinrichs, 2012; Long, 2004; Long & Tienda, 2008).

Benefits of Race-based Admissions

Prior to the ruling of *Hopwood*, institutions in Texas experienced higher gains of underrepresented students admitted into college. Pre-*Hopwood* at the University of Texas (UT) and Texas A&M University (TAMU), both Black and Latino applicant's likelihood for admission was 12 to 14 percentage points higher than White applicants (Long & Tienda, 2008). When excluding student's ranked in the top 10%, the likelihood of Blacks and Latinos being admitted was 30-31% higher compared to Whites earning acceptance (Long & Tienda, 2008).

Blacks were more likely to be admitted than Whites at UT and TAMU, while the opposite was true at Texas Tech University (TTU) (Long & Tienda, 2008). Long and Tienda (2008) highlight Native American applicants being less likely to gain admissions compared to White students at UT. The pre-*Hopwood* race-based initiatives demonstrated underrepresented students benefited from that admission practice, although it slightly varied by college. Despite the benefits of race-based admissions, states continued to fully implement the proposed initiatives and bills to transition to race-neutral percentage plan admissions options.

Removal of Race-based Admissions

In the late 1990's, many states eliminated race-based affirmative action admissions policies and adopted economic race-neutral preference programs more commonly known as percentage plans. State governing higher education boards deemed percentage plans an appropriate alternative aimed to increase admission for underrepresented groups and minimize losing diversity on college campuses (Kahlenberg, 2003; Long, 2004). Different state initiatives and bills lead to the removal of race-based admissions, notably in California, Washington, Texas, and Florida (Kahlenberg, 2003).

In 1995, the University of California (UC) system voted to prohibit considering race and/or ethnicity in public education which includes college admissions and approved Standing Policy 1 (SP-1), which eliminated race-based admission at UC institutions. A few years later Proposition 209, also known as the California Civil Rights Initiative passed. This amendment to eliminate all "preference" based on race, ethnicity, and sex (Long, 2004; Moses et al., 2009) followed abolition of the system's affirmative action policies. The University of California System's alternative to the removal of race when rendering an admissions decision was the percent plan program. This program guaranteed admission to students who completed particular coursework and ranked in the top four percent of their high school graduating class.

The state of Washington followed with a similar voter-enacted ban in 1998 that eliminated campus affirmative action programs (Long, 2004). Initiative 200 banned considering race and sex in public hiring, contracting, and college and university admissions (Moses et al., 2009). Once considering race in college admissions was banned

in Texas, they followed California and Washington with the implementation of percentage plans. The state strategized admissions policies to offset the effects of race-neutral admissions. The result was the passage of House Bill 588, more commonly known as the Top Ten Percent Plan (Moses et al., 2009; Niu, Tienda, & Cortes, 2006).

The One Florida Initiative executive order was implemented in 1999, like California, Washington, and Texas bills and initiatives; it too eliminated the use of racial preference in college admission with goals of achieving diversity in state schools. The One Florida Initiative instituted the Florida Talented 20 Program, which is a percentage plan. A unique distinction in the Florida race-neutral admissions from other states is that it still considers race in other non-admissions programs such as scholarship and outreach (Moses et al., 2009).The percentage plans in California, Washington, Texas, and Florida guaranteed admission to students graduating in a specific percentage of their high school graduation class to a public post-secondary education institution in their state.

Impact of Alternatives to Race-based Admissions

Proposition 209 in California impacted the college student population in public colleges quickly. In 1998, UC-Berkeley had a 52% decrease in the number of Black and Latino students in the entering freshman class (Moses et al., 2009; University of California-Berkeley, 2009). The percentage plans had a similar effect at Washington State University (WSU). Schools in both states had an increase in Asian and Pacific Islanders and a decrease in Black and Latino enrollment (Moses et al., 2009). Additionally, the University of Washington experienced a significant decrease in the number of students of color applying and enrolling (Moses et al., 2009).

Florida's Talented 20 Program registered results similar to California and Washington. Moses et al. (2009) findings support White students showing enrollment gains and Black students suffering the greatest losses. Likewise, at flagship schools in the state of Texas, underrepresented student enrollments dropped drastically as a result of banning race in admissions. Texas legislators and college administrators began to seek ways to improve the declining numbers (Long, 2004), which lead to the development of the Ten Percent Plan in Texas.

Despite the implementation of the Texas Ten Percent Plan, college administrators at both UT and TAMU anticipated a decline in underrepresented student enrollment even after the Ten Percent Plan was implement. In response, both schools developed scholarship programs specifically for underrepresented students (Bucks, 2004; Long, 2004). UT's scholarship, the Longhorn Opportunity Scholarship, is funded by alumni and TAMU developed the Century Scholars Program (Bucks, 2004). The goal of both scholarship programs was to off-set the decline of underrepresented students. Unfortunately, the scholarship programs were not enough.

Texas's Ten Percent Plan led to dips in the enrollment of underrepresented students which is similar to the impact of other states' race-neutral programs. Overall, at both UT and TAMU the number of underrepresented freshmen dropped (Bucks, 2004). More specifically, between 1998 and 2002 at both TTU and TAMU, Black and Latino students not meeting the top 10% criteria were less likely to be accepted compared to White applicants (Long & Tienda, 2008). At UT the Black and Latino students fell by 2% in 1997 for students not admissible based on the 10% criteria (Long & Tienda, 2008; Moses et al., 2009). The impact of the percentage plans reflects that too few

underrepresented students are in the top 10% of their high school graduating classes to generously improve the amount of minorities top-tier colleges (Hinrichs, 2012; Long, 2004) and underrepresented students in the top percentage would be accepted without the program anyhow.

The percentage plan is also considered a socioeconomic admissions preference plan (Kalenberg, 2003) designed to ignore college entrance exam scores and obstacles the student had overcome which may have included parental education, income, occupation, and wealth (Carnevale & Rose, 2003). However, students from more economically affluent backgrounds benefitted most from the class rank system (Carneval & Rose, 2003), which is contrary to the distinct purpose of percentage plans. Race-neutral admissions lead to underrepresented applicants being "losers" in the changing admissions culture while majority students continued to maintain their college admissions advantages (Long & Tienda, 2008). Other options for admissions are available for students beyond the percentages plans. HSGPA and college entrance exam scores are also used to render admissions decisions.

High School Academic Predictors of Success in College

Many postsecondary institutions use college entrance exams scores such as the ACT and SAT to guide admissions decisions for college-bound students (NACAC, 2008). The College Board developed what is now known as the SAT in 1900. The origins of the SAT are rooted in the Army Alpha test, which was used during World War I. The Army Alpha test was derived from the IQ test and designed to test military soldiers inherited attributes (Syverson, 2007). The ACT was developed in 1959 to test student's

mastery of high school curriculum. This makes the ACT more closely tied to high school curriculum compared to the SAT (Atkinson & Geiser, 2009; Koenig et al., 2007).

Although, both college entrance exams were initially derived from other formalized tests in which there purpose was not to guide admissions decisions for college bound students. Exploration of college entrance exams ability to predict students' college success has occurred for a century (Camara & Echternacht, 2000) and both tests receive firm criticism in their ability to predict success in college. First-year college grade point average (FYGPA) is most commonly used to determine college success because freshman courses are more similar across different areas of study compared to courses taken as an upperclassman (NACAC, 2008). Research concluded HSGPA to be a better predictor of college success compared to college entrance exams (Allen & Sconing, 2005; Geiser & Santelics, 2007; Noble & Sawyer, 2002). Yet, research findings also support college entrance exams scores as a better predictor than HSGPA (Korbin & Michel, 2006; Korbin, Patterson, Shaw, Mattern & Barbuti, 2008; Myers & Plyes, 1992; Noble & Sawyer, 2002). Additionally, both college entrance exams have biases toward underrepresented students (Myers & Plyes, 1992; Noble, 2003).

More specifically, the SAT estimates educational achievement related to successful performance in college and reasoning ability. Although the SAT gauges educational achievement, high school grades incorporate non-cognitive factors such as classroom participation, effort, behavior, attendance, improvement, conformity, and motivation (Bowers, 2011; Kobrin & Michel, 2006). Since these non-cognitive factors are incorporated into HSGPA psychometricians and assessment researchers have slandered the grading practices in secondary schools (Bowers, 2011). It is evident the

HSGPA and college entrance exams consider different factors and ability in their measurements. This section examines different predictors of college success.

HSGPA vs. College Entrance Exams

HSGPA and the degree of difficulty of courses taken in high school can potentially offer significant insight into academic preparedness (Allen & Sconing, 2005). Other studies support HSGPA as a more accurate predictor of success compared to ACT and SAT (Geiser & Santelics, 2007; Korbin & Michel, 2006; Noble & Sawyer, 2004; Sackett, Kuncel, Beatty, Rigdon, Shen, & Kiger, 2012; Zwick & Schlemer, 2004; Zwick & Sklar, 2005). Meanwhile, Geiser and Santelices (2007) examined the validity of high school grades in predicting students' success beyond their freshman year for 79,785 first-time freshmen. Minorities accounted for 17% of this sample. The researchers found high school grades were consistently the strongest predictor of college grades from their first to fourth year in college. In a more recent study by Sackett, Kuncel, Beatty, Rigdon, and Kiger (2012), compared three groups of data which included observed, school-application pool and national-population totaling 143,606 at 110 colleges and universities. Sackett et al. (2012) determined HSGPA to be a better predictor than SAT.

Noble and Sawyer (2004) conducted a study exploring HSGPA as a predictive factor for academic success in FYGPA at different levels in college among 219,435 first-year college students from 301 postsecondary institutions using a logistic regression. The researchers defined academic success as FYGPA (Noble & Sawyer, 2004). The finding support HSGPAs as slightly more accurate compared to ACT in predicting FYGPAs at 2.00, 2.50, and 3.00 compared to ACT composite scores. Kobrin and Michel (2006) examined SAT scores as predictors of different levels of college performance in

approximately 34,000 first-time entering freshmen among 30 colleges using a logistic regression analysis. The findings conclude HSGPA compared to SAT was a better sole predictor of FYGPA at or above 2.5 to 3.0. Although HSGPA successfully predicted certain levels of success related to FYGPAs, HSGPA was less effective than ACT or SAT at predicting higher FYGPAs at 3.25, 3.50, and 3.75 FYGPAs (Korbin & Michel, 2006; Noble & Sawyer, 2002).

College Entrance Exams vs. HSGPA

Contrary to HSGPA as a better predictor of FYGPA other researchers found college entrance exams as a better predictor. At specific FYGPAs both ACT and SAT is better predictors of college success and performance at 3.25 and 3.50 (Korbin & Michel, 2006; Noble & Sawyer, 2004). Korbin and Michel (2006), concluded zero for predicting successful students, although Noble and Saywer (2004) predicted success at FYGPAs of 3.75 or higher.

Myers and Plyes (1992) conducted a study over 420 first-time entering freshmen at a medium-size public regional university in Mississippi exploring the relationship among high school grades, ACT, and college grades using a regression analysis. The researchers define college success as a student first semester in college. The findings highlight the final fall college GPA is highly correlated with ACT score, as well as specific college courses including English, college algebra, world history, and general psychology.

In 2005, the writing section was added to the SAT. Kobrin, Patterson, Shaw, Mattern, and Barbuti (2008) examined the validity of the college entrance exam for predicting FYGPA at 110 institutions among 151,316 first-time college freshmen. The

findings support the changes made to the SAT did not extensively change the predictability of determining first-year college performance. Results from the study also conclude SAT is a better predictor for student's at the most selective institutions (Kobrin et al, 2008; Korbin & Michel, 2006). Kobrin et al. (2008) determined the SAT writing section is the better predictor of first-year college performance compared to the math and critical reading sections.

Similar to SAT findings, the ACT is favorable in predicting success at all FYGPA levels including 2.00, 2.50, 3.00, 3.25, 3.50, and 3.75 compared to HSGPA (Noble & Sawyer, 2004). In slight contrast, findings from Kobrin and Michel (2006) study conclude the SAT is as good or better a predictor of FYGPA compared to HSGPA. Although the ACT was a better predictor than HSGPA at all FYGPA levels, Kobrin and Michel (2006) concluded neither the SAT nor HSGPA are able to predict successful students with FYGPAs of 3.75 or higher.

In 2002, Fleming analyzed 1,485 freshman and seniors correlations of the SAT from 15 colleges including historically Black and predominantly White colleges. The focus of the study entailed determining consequences of the SAT in college adjustment considering different types of academic performance. A significant finding of the study included the SAT predictive validity among Black students at predominately Black colleges was a better predictor. Fleming (2002) also determined psychosocial issues to be more characterized with high SAT scores among White colleges. Yet, psychosocial issues were not exactly linked to predictive validity of the SAT.

Culpepper and Davenport (2009) examined predictors of student's success among 32,103 first-year students enrolled in 30 different colleges and universities in 1995. The

predictors examined in this study included SAT and HSGPA, in which Black and White students had comparable college entrance exam scores and HSGPA's. The results of the study concluded Black students were expected to earn lower FYGPAs and HSGPA was not as accurate a predictor for Black students. Culpepper and Davenport (2009) concluded it is likely Black students' high school educational quality is a factor related to their under-preparedness for college in which it leads HSGPA's to predict Black students' college grades differently as compared to other race/ethnic groups.

Benefits of Using Both HSGPA and College Entrance Exams

Despite HSGPA, ACT, and SAT individually being predictors of success, combining college entrance exam scores with HSGPA is the overall best predictor. In a study to determine the validity of the SAT for predicting FYGPAs, Kobrin et al. (2008) found the overall best predictor of first-year college performance was a combination of HSGPA and all the sections of the SAT. In another study which examined student from 110 different colleges and university role of socioeconomic status in relationship to college entrance exam scores and high school grades findings also support using both college entrance exam score and HSGPA as the better predictor of college success (Sackett et al., 2012).

Meanwhile, Noble and Sawyer (2002) concluded predictions based on HSGPA and ACT score together as more accurate than those based solely on HSGPA or ACT score. Later Noble (2003) determined using both ACT and HSGPA in determining college admissions would likely increase the students' academic success and persistence in college. Myers and Plyes (1992) also recommend using both ACT and HSGPA. Fleming (2002) findings also support college entrance exam, the SAT and HSGPA

correlating with academic success. The correlation of academic success was specifically in high scoring students with concerns of academic adjustment issues.

Underrepresented Groups

The best predictors of college success vary for underrepresented groups compared to majority group student populations. Myers and Plyes (1992) studied the relationship between high school grades, ACT score, and college grades for 420 first-time freshmen and also found that high school grades and ACT scores are less reliable predictors of college success for Blacks compared to White students. Furthermore the ACT score for Whites is more highly correlated with the final fall GPA compared to Black students. Noble (2003) examined the effects of using ACT composite score and HSGPA on college admission decisions for racial/ethnic groups at 311 different institutions. The research found that Black and Latino students within a specific range of HSGPA had a much lower probability of success than White students with the same high school average.

Furthermore, when admission is based on ACT or HSGPA, and if race/ethnicity is not considered, a smaller number for Black and Latino applicants are admitted to college compared to White applicants (Noble, 2003). Additionally, Noble (2003) predictions which used HSGPA or ACT score overestimated first-year performance of Blacks and Latinos compared to Whites. ACT score and HSGPA were slightly less accurate predictors for Latinos compared to Whites and slightly more accurate predictors of first-year outcomes for Black compared to White students. With the differences in the research about which is a better predication of college success between HSGPA, college entrance, or a combination of HSGPA and college entrance exam score is a precursor to the criticism of the college entrances.

Although the ability to predict success at predominately Black colleges findings differ from the literature that demonstrates college entrance exams as a less reliable predictor for underrepresented groups (Myers & Plyes, 1992; Noble, 2003) Schwartz and Washington (2002) conducted a study specifically examining 229 Black males at a historically Black college. The study examined the student's academic performance and retention. College grades, HSGPA, high school class rank, and SAT scores were used to determine the performance of the students. The findings support HSGPA, high school class rank, and noncognitive variables were related to college academic performance among this population of students.

High School Attended and Class Size

In conjunction with college entrance exams and HSGPA, researchers are analyzing how the size of a high school cohort and high school attended impact college success. Fletcher and Tienda (2009) examined whether students who graduated from the same high school and attended the same university influenced college GPA and persistence. Students who have more classmates from their high school and attended a particular institution performed better academically than their peers who had a smaller group of students attend the same institution. Underrepresented students with a larger high school cohort benefited more academically compared to White students. In summary Fletcher and Tienda (2009) conclude the size and make-up of a college students cohort is important in understanding the impact on college GPA.

Another study (Fletcher & Tienda, 2010) expanded the findings of Fletcher and Tienda (2009) in that it determined depending on the high school underrepresented student attended, it impacts their level of academic success. Black and Latino students

experience higher first semester GPAs as compared to their White peers when using a fix effects model. The fixed effect model in Fletcher and Tienda (2010) "captures those characteristics of high school that are shared by graduates of the school, which would include similar curricula, teachers, college preparatory training, distance to college, and other measures of high school quality and access to college" (p. 6). When the fixed effects model was not considered, underrepresented students first semester GPA was lower as compared to White students.

Critiques of Standardized Testing

College entrance exams continue to receive strong critique even though colleges still used the ACT and SAT to guide admissions decisions across the United States. The criticisms vary from unfairness toward low-income students (Alon, 2009) to test preparation opportunities (Buchman et al., 2010). Researchers continue to pursue studies to portray how the tests are unfair and biases. To clearly understand test bias, an early writing by Cole and Moss (1989) express test bias occurs "when a test score has meanings or implications for a relevant, definable subgroup of test takers that are different from the meaning or implications for the remainder of the test takers" (p. 205). This section reviews the impact of test biases, criticism of college entrance exams that exist among non-native speakers, low-income, biases of shadow educational opportunities, and test preparations.

Test Biases Impact

As new research is presented, criticisms of college entrance test continue. Previous studies findings support correlations between test biases associated with college entrance exams and wealth, parental education, and race/ethnicity (Geiser & Santelices,

2007; NACAC, 2008; Rosner, 2012; Santelices & Wilson, 2010). Institutions ranging in size and mission have identified college entrance exams as a major barrier for entry to thousands of academically qualified female, first-generation, low-income, and minority students (Alon, 2009; Geiser & Santelices, 2007; Ronney & Schaffer, 1998; Rosner, 2012).

Conflicts in the research exist between test biases and minorities. Fleming and Garcia (1998) reference that "the National Research Council of the National Academy of Science reports that SAT scores predict performance as accurately for Blacks as they do for majority applicants" (p. 471). Although the report reveals average scores for Whites are higher than for Blacks, similarly to men compared to women, these averages fail to indicate the different abilities of individuals within these groups and they are generalized across the college applicant population. The entrance exam scores can then be unhelpful identifying specific attributes of applicant, which is what the test is intended to identify.

Furthermore, Hilliard (1990) and Carty-Bennia (1989) concluded college entrance exams are innately unfair to disadvantage underrepresented groups because they are culturally and educationally inappropriate because the test are inaccurate in assessing the potential of underrepresented groups (Crouse & Trusheim, 1988; Santelices & Wilson, 2010), and there is a wide variation in predictive validity that suggest unfairness. When the SAT is used for admissions, it has a significant impact on poor and underrepresented applicants compared using high school grades, class rank, and other measures of academic achievement due to a higher amount of stratification (Geiser & Santelices, 2007). Specifically, when students are ranked by SAT I scores alone, the racial stratification is more obvious, underrepresented students consist of 45% of the

bottom decile (Geiser & Santelices, 2007). When colleges overemphasize college entrance exams for admissions, it amplifies the current disparities among underrepresented students and creates a barrier for expanding access to college (Geiser & Santelices, 2007; NACAC, 2008).

Non-native Speakers Biases

More immigrants of children are applying to United States colleges (College Board, 2005). In 2005, 22% of college bound high school seniors indicated their first language was, "English and another language" or "another language" (College Board, 2005). Research demonstrates mixed findings of biases for students whose first language is not English (NACAC, 2008). This creates a critical issue in the practical usage of college entrances exams appropriateness for non-native English speakers.

Some studies determined the SAT as a better predictor of FYGPA for non-native English speakers (Zwick & Schlemer, 2004; Zwick & Sklar, 2005). Zwick and Schlemer (2004) studied Latinos and Asian Americans whose first language was not English in determining the effectiveness of SAT and HSGPA in predicting FYGPA. In another study Zwick & Sklar (2005) examined the predictability of FYGPA and graduation, amongst a different student population which included Hispanic students whose native language is Spanish and Hispanics, Black, and Whites whose first language is English. Both studies yielded similar findings, over-predicting students FYGPA in among non-native speakers. Although when using the SAT to predict FYGPA for non-native speakers other research concludes the SAT under-predicts the FYGPA (Ramist, Lewis, & McCamley-Jenkins, 1994) which can potentially be impacted by non-native language groups being defined in differently (Zwick & Schlemer, 2004; Zwick & Sklar, 2005).

Income Test Biases

In addition to the mixed bias and non-bias findings for non-native English speakers on college entrance exams, income biases also exist. The social-economic class of a college bound students directly impacts college enrollment and attending a selective postsecondary institution (Alon, 2009). Score gaps on the SAT result from difference in income, parental education, wealth, or quality of school attended (Rosner, 2012). Opportunities known as "shadow education" (Buchman, Condron, & Roscigno, 2010) which including test preparation, are available to improve college bound students college entrance exam score. Lower-achieving, underrepresented, and high and low income students are taking advantage of these opportunities. Higher achieving students are less likely to pursue shadow education compared to lower achieving students. Also, ethnic minorities are more likely than Whites to engage in some form of test preparation when considering family income, parental education, and other factors (Buchman et al., 2010).

Shadow Education

Family background and income inequalities also contribute to the likelihood of students engaging in test preparation and other shadow education activities (Buchman et al., 2010). Although low income students are taking advantage of shadow education (Buchman et al., 2010) it may be a financial strain for many. Low-income students may struggle to afford these shadow education opportunities which will continue to exist due to student's family income, school setting, and other external variables (NACAC, 2008). Furthermore, utilizing shadow education can magnify postsecondary access inequality and impacts the nation's ability to provide equal education opportunities to the general population (Baker & LeTendre, 2005).

Buchman et al. (2010) defines shadow education as "educational activities such as tutoring and extra classes outside of the formal channels of an educational system that are designed to improve a students' chance of successfully moving through the allocation process" (p. 436). Although students are pursuing shadow education opportunities to improve their college entrance exam scores, research studies have opposing findings on how much a student's score increases from test preparation courses. Test preparation companies market student's scores will increase by 100 points or more, yet College Board indicates the SAT is not "coachable" and test preparation is considerably ineffective (Buchman et al., 2010). Well-designed research studies conducted within the past two decades produced consistent results about gains from engaging in test preparation and coaching, but the gains in test scores are incompatible with recommended gains of 100 points test preparations companies market (Becker, 1990; Briggs, 2001; Briggs, 2002; Briggs & Dominque, 2009; Powers & Rock, 1999).

Test Preparation Biases

Students who enrolled in test preparation and coaching courses experience gains in the SAT score between 6 and 8 points on the verbal section and between 14 and 18 points on the math section (Becker, 1990; Briggs, 2001; Power & Rock, 1999). Although research also indications larger gains from test preparation for the SAT test ranging between 20-30 points (Powers, 1998; Powers & Rock, 1998). It is more likely for students from higher income families to enroll in Princeton Review and Kaplan course, and experience SAT score gains of about 30-40 points (Buchman et al., 2010). Although students experience small gains from test preparation based on a 2009 survey by the National Association for College Admission Counseling found that based on 130

institutions responses, over a third agreed an improvement of 20-points on the SAT-Math would significantly increase a student's likelihood of admissions to a post-secondary institution (Briggs, 2009).

Much of the available literature about test preparation is from the 90s and early 2000s (Becker, 1990; Briggs, 2001; Powers, 1998, 1999). More recent studies seek to identify how students can overcome the biases in test preparation the transition to college, and determining why gaps exist in college entrance exams (Cates & Schaefle, 2011; Walpole, McDonough, Bauer, Gibson, Kanyi, & Toliver, 2005; Walpole, Simmerman, Mack, Miles, Scales, & Albano, 2008). Walpole, McDonough, Bauer, Gibson, Kanyi, and Toliver (2005) studied Blacks and Latinos to determine why college entrance exam gaps exist in urban areas. The researchers summarize that Black and Latino students struggle to know basic knowledge about college entrance exams. Many students who participated in the study, parents were not college educated and were dependent on the high school to communicate information about college entrance exams.

Despite College Board marketing test preparation is not coachable, Power and Rock (1998) concludes test preparation does make a difference for students who take advantage of them and can slightly increase a student's test score. Families with the available economic resources purse this shadow activity although there are students who do not have the economic resources and are unable to enroll in test preparation. This is what allows the biases toward less economically advantage and underrepresented students to continue and leads to unfair access to colleges (especially selective colleges) (Walpole et al., 2005). Underrepresented students with limited financial resources take advantage of free local test preparation programs offered in the community. Test

preparation and coaching studies beyond the SAT are scarcely available and as post-secondary institutions continue to require standardized test for entry to their institution, test preparation and college entrance exam companies' offerings will continue to thrive financially (NACAC, 2008).

With the influx of college bound students taking advantage of test preparation, the SAT preparation services develop into a multi-million dollar industry (Alon, Tienda, 2007). The Princeton Review, one of the largest test preparation companies, earned $100.4 million in revenue from test preparation services in 2009 (Princeton Review, 2010). Vigdor and Clotfelter (2003) determined students from financially advantages backgrounds are more likely to take the SAT multiple times. Approximately 15% of college bound students take the exam three or more times (Mehta & Gordon, 2008), although research shows repeated testing taking fails to increase a student score drastically College Board recommends taking the SAT twice, the spring of their junior year and the fall of their senior year of high School. Students begin to experience diminishing returns on their college entrance exams after taking the exam 3-4 times. College bound Black students were less likely to take the SAT multiple times compared to Whites and students whose parents earned $60,000 and had a 1.5% higher probability of taking the test again compared to students whose family income were below $40,000 (Vigdor & Clotfelter, 2003). Both the College Board and ACT offer two fee waivers for low-income students.

Student Engagement and Academic Success

Entering college as a first-time freshman is a new phase of life for college students and presents new opportunities as they embark on their college journey. The

previous opportunities available for students, along with their previous academic achievement impact a student's first year college success. Students become involved at their institution through work, academic pursuits, and social activities. Researchers agree more research must be completed to properly discern prior academic achievement, gender, race and ethnicity, first generation status, and student engagement (Allen, 1999; Gaither, 2005; Person & Christensen, 1996).

Student engagement must be frequently studied to distinguish how different types of involvement during a student's experience impacts their persistence and academic success. Other factors, including a student's level of motivation, contribute to students' academic success in college. Aside from predictors of college success, today's entering freshmen are exposed to additional distractions that were unimaginable a hundred years ago such as social media. This section examines factors that impact a student's academic success such as motivation, student engagement, and current scholarship on social media.

Motivation and Engaged Students

Student engagement has been related to a student's academic success and persistence. Engagement can include components such as extra-curricular involvement, interacting with faculty and fellow college students, and academic experience (Kuh, 2009). Kuh, Cruce, Shoup, Kinzie, and Gonyea (2008) considered the relationship between college student's behaviors, university practices, and what conditions contributed to student's success. The overarching theme from Kuh et al. (2008) is that specific types of engagement experience impact a student's academic success. Such as student who engaged in educationally purposeful activities that enter college with lower

academic achievement experienced small gains in FYGPA. The more students studied the higher their FYGPA, especially students who studied 21 or more hours.

How much students engage in different campus offered programs can also influence their academic success. Mentoring and learning communities enhance a student's general academic skills and encouraged students to be more motivated with their academic work (Svanum & Bigatti, 2009). This conclusion of Svanam and Bigatti (2009) were consistent with earlier scholarship (Robbins, Lauver, Le, Davis, Langley, & Carlstom, 2004) in that success in college was related to students engaging in their classes. Robbins et al. (2004) study determined the best predictors for college GPA were self-efficacy and achievement motivation.

As student engagement is used to predict academic success of students, motivation has also been reviewed in scholarship to determine the impact it has on a student's academic success. Motivation can be an important component for a student succeeding in college. Earlier research (Allen, 1999) examined the relationship of four different factors among underrepresented and non-underrepresented students including academic performance, motivational factors, persistence, and student's background. The results of the study confirmed motivation failed to impact a student's academic performance. The study also determined financial aid, parental education, and precollege academic ability impacted both underrepresented and non-underrepresented students.

A more recent study evaluated diverse culture groups and different socio-economic status (SES) among college students to determine the impact SES and motivation had on academic motivation and achievement (Young, Johnson, Arthur, & Hawthorne, 2011). In this particular study, student from higher SES backgrounds had

higher GPAs as compared to students with lower SES backgrounds. The results from the study endorse a student's motivation fails to impact a student's academic performance although different factors affect a student's motivational level such as SES background (Young et al., 2011).

Social Media and College Success

College students have become highly involved with different social networks and it has become an integral part of their daily lives and social activities. Few studies have reviewed the impact of social media related to student engagement and academic success in college. Although similar studies have examined the relationship between technology including an electronic voting system and engagement in a college math class (King & Robinson, 2009) and educational game design to teach college science concepts (Annetta, Minogue, Holmes, & Cheng, 2009). Social media such as Twitter and Facebook present new areas of exploration on how social media impacts college grades and engagement in college (Junco, 2012; Junco, Heibergert, & Loken, 2011). When students and faculty engage in educational activities using Twitter, it increased student engagement and college grades (Junco, Heibergert, & Loken, 2011).

A few studies (Junco, 2012; Kirschner & Karpinski, 2010) have examined how social media impacts college GPA. Kirschner and Karpinski (2010) results concluded student Facebook users had lower college GPAs and study fewer hours during the week compared to students who are nonusers of Facebook. This particular study examined a small population ($N = 219$) of upper-class undergraduate students. A more recent study (Junco, 2012) explored more specific impacts Facebook has on college students based on the usage of Facebook. Junco (2012) reviewed a larger population of students ($N =$

3,866). The findings demonstrated HSGPA was positively related to college GPA and preparing for class (Junco, 2012). Students with parent(s) with an advance degree had a positive relationship with college GPA. Also, HSGPA was positively related to the amount of time a student spent preparing for class. As for genders, Males were impacted greatly in that chatting on Facebook chat, amount of time spent on Facebook, and posting status updates negatively impacted college GPA (Junco, 2012). All Black students college GPAs were negatively impacted by Facebook usage related to posting status updates (Junco, 2012). The literature related to social media demonstrates mix findings in the impacts of a student's performance in that it is largely determined by how social media is utilized.

In conclusion numerous studies by the college exam organizations have examined the best predictors of college success and benchmarks for college readiness (Allen & Scoring, 2005; Bridgeman et al., 2000; Burton & Ramist, 2001; Camara & Echternacht, 2000; Korbin & Michel, 2006; Korbin et al., 2008; Noble, 2003; Noble & Sawyer, 2002; Ramist, Lewis, & McCamley-Jenkins, 1994). Other studies explored the impact of admission options considering race-neutral admissions practices among majority and underrepresented students (Bucks, 2004; Hinrichs, 2012; Long, 2004; Long & Tienda, 2008; Moses et al. 2009; University of California-Berkeley, 2009). The literature also includes research that examined noncognitive factors predicting success of college students (Sedlacek, 2004; Schwartz & Washington, 2002). As related to college success student engagement, motivation, usage of technology and social media have explored college success among college students at different levels of their undergraduate experience to determine how these factors impact college success.

Few studies have examined underrepresented (especially Native American) students' ability to be successful based on how they were admitted to the university. Also few studies have compared FYGPA among students at a particular university in the Midwest with a larger population of first time full time students. This study will explore student's race/ethnicity based on how they were admitted to the university, specifically among underrepresented students including Blacks, Latinos, and Native Americans and compare FYGPA by race/ethnicity.

CHAPTER III

METHODOLOGY

This chapter explains the methods used to complete the study. The study tested to determine the association of a student's race/ethnicity and how they were admitted to the university and tested the difference between freshmen FYGPA by the student's race/ethnicity. The research used a chi squared and one-way ANOVA design to analyze the data retrieved. This chapter highlights the research setting, data analysis, participants, research design, data collection, and concludes with an overview of the research methods.

Research Setting

The data for the purpose of this study was retrieved from a university located in the central Midwest and is a large public four-year primarily residential school (Carnegie Classification, 2013). The university is considered to have high research activity and provides bachelors, masters, and doctoral degrees. This research university is a selective university with primarily full-time four-year undergraduate students with a high level of students transferring into the university (Carnegie Classification, 2013). The collegiate

institution was referred to as State University (SU) throughout the study. SU is one of six campus governed by a state board of regents. The university averages enrollment for entering freshmen is over 3,500 every fall and an overall student body population of 23,033 students (Carnegie Classification, 2013; IRIM, 2011).

The university has four different admission options for entering freshman which include:

Orange:	24 ACT/1090 SAT
Brown:	3.0 unweighted HSGPA and rank in top 33.3%
Silver:	3.0 HSGPA in the 15-unit core and 21 ACT/980 SAT
Gray:	3.0 GPA in 15-unit core or 22 ACT/1020 SAT or better and answers to the application questions

The Orange admissions option is also known as an automatic admissions option, students only need to submit their college entrance exam score for acceptance. More students are admitted by this admissions option because all a student needs is a certain test score for admission to the university. The unweighted cumulative HSGPA used in the Brown admissions option is capped at 4.0 without additional grade points for Advanced Placement or honors courses and considers all classes taken throughout high school. Since both SAT and ACT scores are received, SAT scores are translated and the admissions office considers the highest total score from one test. The 15-unit core classes used in the Silver and Gray admissions options include 4 units of English, 3 units of Mathematics, 3 units of History and Citizenship Skills, 3 units lab science, and 2 units of other courses selected from any of the sections previously listed or computer science or

foreign language (OSU Admissions, 2013). SU does not consider race when rendering an admissions decision.

Students at SU were admitted by the admissions option they meet first in the following order Orange, Brown, Silver, and then Gray. Admissions option Orange, Brown, and Silver are assured admissions; if a student's meets the admissions criteria they are admitted to the university. If a student meets the criteria for the Gray admissions option, that does not guarantee admissions to the university. The student will be reviewed by an Admissions Review Committee prior to a decision being rendered. When a student is reviewed under the Gray admissions options the student can potentially be admitted as an alternative admit or by holistic admissions review. The Gray admissions option does not guarantee admissions to the university. Under the Gray admissions option students are require to answer three admissions questions. The student's application is then reviewed by an admissions evaluator. Once it is determined the student is inadmissible by the assured admissions options a student's essay responses are reviewed by and admissions review committee. Within the past year the university has altered the Gray admissions option, students are reviewed, but the admission questions were changed to capture different skills from the students' admissions essay responses or creative submission based on the Wisdom Intelligence Creativity Synthesized (WICS) Theory of Leadership.

Data Analysis

The research questions and associated null hypotheses were developed and guided the research for this study.

1. To what extent, if any is there a difference between the student's racial/ethnic identification and the admissions option under which the student was admitted to the university?

   $Ho1_1$: There is no difference between the student's racial/ethnic identification and admission option.

   $Ho1_2$: There is a difference between the student's racial/ethnic identification and admission option.

2. To what extent, if any is there difference between the student's racial/ethnic identification and the student's GPA at the end of the student's 2nd semester at the university?

   $Ho2_1$: There is no difference between the student's racial/ethnic identification and the students GPA at the end of the student's 2nd semester.

   $Ho2_2$: There is a difference between the student's racial/ethnic identification and the students GPA at the end of the student's 2nd semester.

The statistical analysis procedures was executed using the as Statistical Package for the Social Science (SPSS), version 20, to analyze the hypotheses. The findings were reported based on a .05 level of significance (alpha).

Participants

The participants analyzed in this study were college students enrolled at SU as first-time, full-time freshmen, during the 2009 and 2010 academic school years, who completed one full academic year. These students were traditional students, age 19 or younger. The first-time, full-time freshmen enrolled in the fall 2009 and 2010 academic

years include 282 Black, 523 Native American, and 135 Latino, and 4,665 White students. This study highlighted recent high school graduates, those students 19 years of age and younger.

Research Design

The chi square design categories included the student's race/ethnicity and admissions option. In the one-way ANOVA design, the independent variables used were four different races/ethnicities including Black, Latino, Native American, and White students and the dependent variable was FYGPA. Students submitted this information when applying for admission to the university and the information was retrieved from the student's transcripts and entered into SU's Student Information System (SIS). Multiple criterion variables were used also and include the following:

Academic year student was enrolled at State University

Age

Attend in-state vs. out-of-state high school

Core HSGPA

Cumulative HSGPA

Gender

The design of this study uses a chi square design to determine the association between a student's race/ethnicity and how they were admitted to the university. Burns (2000) defines chi square as "a simple non-parametric test of significance, suitable for nominal data where observations can be classified into discrete categories and treated as frequencies" (p. 212). The chi square designed examined the association of four different races and admissions options. An one-way ANOVA design was also used in the study to

determine the difference in FYGPA by race. Burns (2000) defines ANOVA as "hypothesis testing procedure used to determine if mean differences exist for two or more samples or treatments" (p.294).

A few limitations exist with the research design. This particular study did not consider information of students who applied and attended a different university or no post-secondary school at all; this may limit the association of race and admissions option. Additionally, students choose to apply to SU and to attend; these students are more than likely admissible. Many out-of-state students apply, but historically the conversion of students applying and enrolling is lower compared to in-state; in-state students are more likely to attend.

Another limitation in the study included there was no control for the scoring of the admissions essays responses in the Gray admissions option or differentiating between the student admitted alternatively and holistically. The Office of Admissions annually reviews and determines the detailed admissions criteria within the Gray admissions option, the alternative and holistic admissions options, so that criteria varies each year. For the purpose of this study students admitted alternatively and holistically in the Gray admissions option were grouped together, this is a limitation also. Other limitations to the study were due to using data from one university during one specific time period.

Data Collection

The data for this study was initially submitted by students on the application for admissions, which included high school academic transcripts and official ACT and/or SAT score reports. The information was self-reported by the student to SU and entered into the SIS. SIS holds official academic records of current students and former students

of the university. The information system contained all of the dependent, independent, and criterion variables in the study. The Institutional Research and Information Management (IRIM) Department extracted the data and were followed by the researcher downloading the data on a personal computer and analyzed the data using SPSS Based Statistical Package, version 20.

Research Methods

For the chi square design it used four races and admissions options. The four races/ethnicities included Black, Latino, Native American, and White students. The four admissions options included Orange, Brown, Silver, and Gray. The different races/ethnicity and admissions options were match for comparison. In the one-way ANOVA design FYGPA and the four races/ethnicities were used to compare the means of the students FYGPA. The different races/ethnicities were the factors and the dependent variable was FYGPA. The required data was extracted from the university's SIS and verified for accuracy by the IRIM. The data was cleaned and checked for missing or unusual data.

CHAPTER IV

FINDINGS

This chapter reviews the findings for the analysis. First the participant demographics are briefly reviewed. Next, each research question and hypothesis are revisited. Both of the findings of the research questions were that there is a significant different. The summary of findings is summarized at the conclusion of the chapter.

Participant Demographics

The purpose of this study was to determine the association of a student's race/ethnicity and how they were admitted to the university. The study also tested the difference between freshmen FYGPA by the student's race/ethnicity. The population included in this study were students immediately enrolled in State University (SU) immediately after high school graduation for the Fall 2009 and Fall 2010 semesters (N = 5,605). See Table 1 for demographic information about the study participants.

Table 1
Participant Demographics

Characteristic	n	%	*M*
Blacks	282	5.0%	
Latinos	135	2.4%	
Native Americans	523	9.3%	
Whites	4,665	83.2%	
In-State	3,903	69.6%	
Out-of-State	1,702	30.4%	
Female	2,923	52.1%	
Male	2,682	47.9%	
ACT			24.84
SAT			1122.81
First Generation	862	15.4%	

Analysis of Research Question #1 and Hypothesis

To what extent, if any, is there a difference between the student's racial/ethnic identification and the admissions option under which the student was admitted to the university?

$Ho1_1$: There is no difference between the student's racial/ethnic identification and admission option.

$Ho1_2$: There is a difference between the student's racial/ethnic identification and admission option.

A 4 x 4 chi square contingency table analysis was conducted to determine whether there was an association between four racial/ethnic categories and how a student was admitted to State University among four types of admissions options. The results were statistically significant with X^2 (df = 9, N = 5,605) = 196.64, p = .000. Therefore, the null hypothesis was rejected. The results indicate there is a difference between the student's racial/ethnic identification and admissions option. Fewer Black and Native

American students and more White students met the Orange admissions criteria than expected. In the Gray admissions option, Black students were expected to have fewer students admitted by this admissions option, but more Black students than predicted were admitted by the Gray admissions option. Also, White students were expected to have more students admitted by the Gray admissions option, but fewer White students were admitted by this admission option than expected. In the Brown admissions option, White students were expected to have more students admitted by this admissions option, but fewer White students than expected were admitted by this option. Black and Native American students were expected to have fewer students admitted by the Brown admissions options, but more of both racial/ethnic groups were admitted by this admissions option than expected.

The pairwise comparison within the Black student population was the highest percentage totaling 68.4% of students compared to Latino, Native American, and White students admitted by the Brown, Silver, and Gray admissions options with the respective percentages of 38.5%, 41.4%, and 32.8%. As shown in Table 2, a greater percentage of Black, Latino, and Native American students were admitted in the Brown, Silver, and Gray admissions options than White students.

Black students comprised the largest percentage of students admitted through the Brown, Silver, and Gray admissions options as compared to students from all other racial/ethnic groups admitted through these three options. The percent total admitted by the Orange admissions option for White students was 67.2% considering only college entrance exam score, as compared to 61.5% of all Latino students admitted by this option. Latino students were the next highest percentage within its race next to White

students. In the holistic/alternative admissions option, Gray, 25.5% of all Black students, 8.9 % of all Latino students, 8.8 % of all Native American students, and 7.8% of all White students within their race were admitted as shown in Table 2.

Table 2
Association Between Admissions Option and Race: Within Race Percentage

		Race				
Option		Black	Latino	Native American	White	Total
Orange	Count	89	83	306	3,134	3,612
	% within Race	31.6%	61.5%	58.5%	67.2%	64.4%
Brown	Count	97	30	131	844	1,102
	% within Race	34.4%	22.2%	25.0%	18.1%	19.7%
Silver	Count	24	10	40	322	396
	% within Race	8.5%	7.4%	7.6%	6.9%	7.1%
Gray	Count	72	12	46	365	495
	% within Race	25.5%	8.9%	8.8%	7.8%	8.8%
Total	Count	282	135	523	4,665	5,605
	% within Race	100.0%	100.0%	100.0%	100.0%	100.0%

Note. Orange = 24 ACT/1090 SAT; Brown: 3.0 unweighted HSGPA and rank in top 33.3%; Silver: 3.0 HSGPA in the 15-unit core and 21 ACT/980 SAT; Gray: 3.0 GPA in 15-unit core or 22 ACT/1020 SAT or better and answers to the application questions.

Within all four admissions options the White students comprised ≥ 73.7% (n = 4,665) whereas Black students within all admissions options consisted of ≤ 14.5% (n = 282), as shown in Table 3. Black students admitted by the holistic/alternative admissions option, Gray, totaled 14.5% as shown in Table 3. Black and Latino students had 2.5% and 2.3% of their total enrollment at SU respectively admitted by the Orange admissions option, which considers college entrance exam score. Black and Latino students had the lowest percentages of students admitted by the Orange admissions option.

Table 3

Association Between Admissions Option and Race: Within Admissions Option

Race		Admissions Option				
		Orange	Brown	Silver	Gray	Total
Black	Count	89	97	24	72	282
	% within Admissions Option	2.5%	8.8%	6.1%	14.5%	5.0%
Latino	Count	83	30	10	12	135
	% within Admissions Option	2.3%	2.7%	2.5%	2.4%	2.4%
Native	Count	306	131	40	46	523
American	% within Admissions Option	8.5%	11.9%	10.1%	9.3%	9.3%
White	Count	3,134	844	322	365	4,665
	% within Admissions Option	86.8%	76.6%	81.3%	73.7%	83.2%
Total	Count	3,612	1,102	396	495	5,605
	% within Admissions Option	100.0%	100.0%	100.0%	100.0%	100.0%

Note. Orange = 24 ACT/1090 SAT; Brown: 3.0 unweighted HSGPA and rank in top 33.3%; Silver: 3.0 HSGPA in the 15-unit core and 21 ACT/980 SAT; Gray: 3.0 GPA in 15-unit core or 22 ACT/1020 SAT or better and answers to the application questions.

Analysis of Research Question #2 and Hypothesis

To what extent, if any, is there difference between the student's racial/ethnic identification and the student's GPA at the end of the student's second semester at the university?

$Ho2_1$: There is no difference between the student's racial/ethnic identification and the students GPA at the end of the student's second semester.

$Ho2_2$: There is a difference between the student's racial/ethnic identification and the students GPA at the end of the student's second semester.

An one-way ANOVA test was conducted to evaluate whether there was a difference in FYGPA for students from four racial/ethnic categories including Black, Latino, Native American, and White. In this analysis, the racial/ethnic categories were the

factors and the dependent variable was FYGPA. Each category of race/ethnicity included more than twelve subjects and the ANOVA passed the Levene Test of Homogeneity of Variances. The ANOVA was tested at $p < .05$ and was significant, $F(2, 5601) = 51.97$, $p = .000$. Therefore, Ho2 was rejected and it was concluded that FYGPA differed significantly among the four races. The FYGPA for all students was M = 2.92, SD = .80. White students (M = 2.98, SD = .794) had the overall highest mean among the four racial/ethnic groups compared to Black students (M = 2.40, SD = .82) who posted the lowest mean. Table 4 shows the FYGPA means by race.

Table 4
Descriptive Statistics Chart for Mean FYGPA by Race

Race	Mean	SD	N
Black	2.40	0.82	282
Latino	2.86	0.81	135
Native American	2.80	0.81	523
White	2.98	0.79	4,665
Total	2.93	0.81	5,605

A post hoc Tukey Test was completed and the FYGPA of Black students were significantly different (HSD = -.456) when compared to Latino, Native American, and White students. Latino students FYGPA was only significantly different than the mean FYGPA posted by Black students. Native American students' mean FYGPA was significantly different than both White (HSD = -.179) and Black (HSD = .398) students. The results also indicate there was no difference in mean FYGPA between Latino and White students and between Latino and Native American students. Table 5 displays the

FYGPA results from the Tukey Test with the mean FYGPA race by race comparison for all races. The partial eta squared was .027, indicating a small to medium effect size of race impacting FYGPA.

Table 5
Tukey Test: Race by Race FYGPA Mean Comparison

Race	Black	Latino	Native American	White
Black		-.456*	-.398*	-.576*
Latino	.456*		.058	-.120
Native American	.398*	-.058		-.179*
White	.576*	.120	.179*	

Note. Means based on observed means. The error term is Mean Square (Error) = .635.*$p < .05$ level.

Summary of Findings

This study used a 4 x 4 chi squared contingency table analysis and an one-way ANOVA analysis to determine an association between students' race/ethnicity and the admissions option through which the student was admitted to State University in the Fall 2009 and Fall 2010 freshmen classes. The study also determined the difference in mean between the FYGPAs reported by students from different racial groups. Both analyses found statistically significant differences and the null hypotheses were rejected in each case. The p-values were less than 0.001 for both analyses.

CHAPTER V

CONCLUSION

This chapter opens with an overview of the methods used to complete the analysis and a discussion of findings. Next is the discussion of results in relation to the literature in Chapter 2. The discussion of results to the literature will include race-neutral percentage plan admissions options, and affirmative action implications to previous research, college entrance exam biases, and FYGPA and race/ethnicity. The chapter concludes by offering recommendations for research, policy, and practice.

Review of Methods and Findings

Data for this study were collected at a large public four year primarily residential university (Carnegie Classification, 2013) located in the central Midwest. State University (SU) has four admissions options, which include:

Orange: 24 ACT/1090 SAT

Brown: 3.0 unweighted HSGPA and rank in top 33.3%

Silver: 3.0 HSGPA in the 15-unit core and 21 ACT/980 SA T

Gray: 3.0 GPA in 15-unit core or 22 ACT/1020 SAT or better and answers to the application questions (holistic/alternative admissions)

Students at SU were admitted by the admissions option they meet first in the following order Orange, Brown, Silver, and then Gray. Students admitted through the Orange, Brown, or Silver options are assured admissions options; if a student meets the admissions criteria she or he is admitted to the university. The Gray admissions option does not guarantee admissions to the university. Under the Gray option, students are required to answer three admissions questions. Once it is determined the student is inadmissible by the assured admissions options, a student's essay responses are reviewed by an admissions review committee.

The participants analyzed in this study at SU were first-time, full-time college freshmen, during the Fall 2009 and Fall 2010 academic school years who had completed one full academic year. The population included 5,605 traditional students age 19 or younger enrolled college students. The purpose of this study were to determine the difference between student's success indicators including HSGPA, rank in high school class, and college entrance exam score and how students were admitted to a large public institution in Oklahoma. The study also determines if there were differences in FYGPA especially among underrepresented students.

Data were analyzed using the chi squared design; the categories included the student's race and admissions option. The chi squared design was used to determine the association between a student's race and how they were admitted to SU. Also an one-way ANOVA design was used and the independent variables used were four race/ethnicity

categories including Black, Latino, Native American, and White; and the dependent variable was FYGPA. The ANOVA designed was used in the study to determine the difference in mean FYGPA by race/ethnicity.

Data for the study were submitted by students on the application for admissions and the information was self-reported by the student. To analyze the hypotheses Statistical Package for the Social Sciences (SPSS) was used and the findings were reported based on a significance level of $\alpha = .05$ (alpha).

The results of the study indicate an association between a student's race/ethnicity and the admissions option through which the student was admitted to State University in the Fall 2009 and Fall 2010 freshmen classes. The study also determined there was a difference in mean between the FYGPAs reported by students from different racial/ethnic groups.

Discussion of Findings

Many postsecondary institutions attempt to determine the best practices for admitting students who will succeed at their university. The transition to college starts with the college application process and students must meet the admissions criteria for entry to the university. This section discusses the findings of the study in relation to the literature review in Chapter 2. The findings discussed include racial/ethnic association with admissions options and FYGPA comparisons.

Race/Ethnicity Association with Admissions Options

The findings in this study determined that 92.2% of White students were admitted to SU by the assured admissions options, which included Orange, Brown, and Silver. The chi square analysis over-predicted the amount of White students to be admitted by the

Brown admissions option. These findings suggest the majority of White students possessed the high school academic credentials in either college entrance exam score or HSGPA necessary to be admitted to the university. This aligns with Geiser and Santelices (2007) and NACAC (2008) statements that college entrance exams are nonbiased and not a barrier for access to college among White students, but are barriers to underrepresented students.

In this study, the majority of Latino students were admitted by the Orange admissions option. Latino students were not over or under-represented in any admissions option. These findings suggest Latino students do not struggle to meet the admissions criteria for the assured admissions option. With 61.5% of Latino students admitted by the Orange admissions option (ACT or SAT score only), this conflicts with Noble's (2003) findings that suggest Latino applicants are less likely to be admitted if race is not considered.

Fewer than expected Native American students were admitted by the Orange admissions option and were overrepresented in the Brown admissions option. This evidence suggest that Native Americans students' academic credentials were below the admissions criteria for admissions by the Orange admissions option which only requires ACT or SAT score. The findings add to the scholarship related to race/ethnicity and admissions options. Few studies have examined Native Americans and admissions to a university. These findings align with Hillard (1990) and Carty-Bennia (1989), who concluded college entrance exams are unfair toward disadvantaged groups, including Native American students. With Native American students being overrepresented in the Brown admissions options, this finding adds to the literature in that SU's race-neutral

admissions percentage plan may actually provide an opportunity for Native Americans students to gain admission by an admissions practice that has historically disadvantaged students from other underrepresented groups.

Black students admitted by the Orange admissions option accounted for less than 32% of all the options. The chi square analysis over-predicted the amount of Black students admitted by the Orange admissions option, but fewer were admitted. These results suggest that over two-thirds of the Black students had less than a 24 ACT score and academic credentials were lower than the requirements of the Orange admissions option. This aligns with Noble's (2003) earlier findings, which suggest that when admission is based on ACT and race/ethnicity is not considered, a smaller number of Black students are admitted to college. Additionally, these finding support previous scholarship, in that college entrance exam are a major barrier for entry to thousands of academically qualified underrepresented students (Geiser & Santelices, 2007; Ronney & Schaffer, 1998; Rosner, 2012).

More Black students were admitted by the Gray admissions option than those of any other race/ethnicity category. Black students were over-represented in the Gray admissions option in which the chi square analysis under-predicted the Black students admitted by this option. This finding suggest Black students are disadvantaged in being admitted by assured admissions options that require a specific college entrance exam score or a combination of college entrance exam score and HSGPA, given that the Gray admissions option considers the HSGPA among other factors. By using the HSGPA, this admissions option reviews the student's academic performance throughout their entire high school experience, whereas the Orange admissions option determines a student's

admissibility to the SU based on a test score. These results reiterate the importance of reviewing students HSGPA, which considers non-cognitive factors whereas college entrance exams evaluate cognitive factors (Fleming, 2002; Myers & Plyes, 1992; Noble, 2003; Noble & Sawyer, 2002).

Black students had the most students admitted to SU by the Brown admissions option than those of any other race/ethnic category. The Black students were over-represented although the chi squared analysis under-predicted Black students. The Brown admissions option, a percentage plan admissions option considers high school class rank and HSGPA. Percentage plan admissions options developed as an appropriate alternative aimed to increase admissions for underrepresented groups and to minimize losing diversity on college campuses (Kahlenberg, 2003; Long, 2004)

Because SU is a predominantly White institution (PWI), White students composed the vast majority of students admitted to SU. Latino students comprised the fewest number of admitted students as compared to all other race/ethnic groups. Native Americans students were the second highest race/ethnic group. Within the years of the study, SU led the state with the most Native American college graduates within the state of Oklahoma. With White students comprising the vast majority of SU's admitted students, these students numerically dominated the different admissions options in that they represented greater than 82% of all students in the study.

Nearly two-thirds of all SU students were admitted by the Orange admissions option. White students comprised the greatest amount of students admitted as compared to other underrepresented race/ethnic groups, with less than 15% admitted by the Orange admissions option. These results suggest the Orange admissions option is not an access

barrier to White students. The students admitted by this option demonstrate mastery of high school curriculum as gauged by the ACT. These findings relate to a study by Korbin and Michel (2006) in that ACT was a better predictor of college success and performance than HSGPA.

When comparing all admissions options, fewer than 10% of students were admitted by the Silver admissions option. Underrepresented students comprised nearly 20% of students admitted by the Silver admissions option. If students are admissible by the Orange or Brown admissions options, they are admitted by those options prior to being considered for admissions through the Silver admissions option. This admissions option considers both college entrance exam score and HSGPA and the findings suggest the Silver admissions option is a barrier to underrepresented students by having the college entrance exam requirement. This parallels other scholarship by Hilliard (1990) and Carty-Bennia (1989) that college entrance exams are biased toward underrepresented groups.

The Brown admissions option had the second highest amount of students admitted. Underrepresented students were the most populous student race/ethnic group admitted by the Brown admissions option as compared to the Orange and Silver admissions options. These findings suggest more underrepresented students were admitted by the Brown admissions option because a college entrance exam score was not required. This aligns with previous studies that suggest college entrance scores are barriers. Considering this admissions option is a percentage plan admissions option, findings from this study conflict with earlier studies that suggest percentage plan admissions is unbeneficial toward underrepresented students in that it will likely decrease

the amount of underrepresented students (Long & Tienda, 2008; Moses et al., 2009; UC-Berkeley, 2009). The findings from the current study suggest the Brown admissions option, a race-neutral percentage plan option of being ranked in the top third of one's graduating class and having a 3.0 HSGPA benefits Black students. The Brown admission option at SU accomplishes the original goal of race-neutral percentage plan admissions practices of promoting opportunities for underrepresented students.

Within the Gray admissions option, the holistic/alternative admissions option, underrepresent students comprised slightly over 25% of students admitted by this admissions option. Black students were most numerous by race of the underrepresented racial/ethnic groups admitted by the Gray admissions option. These findings suggest more Black students, as compared to other race/ethnic categories, lack the academic criteria for admissions by the assured admissions options. These results also suggest as the underrepresented students are solely admissible by the holist/alternative admissions option that these students need to be reviewed for admissions by examining the factors that college entrance exams have limitations to measure. The literature reinforces these findings in that college entrance exams fail to indicate the different abilities and are inaccurate at assessing the potential of underrepresent race/ethnic groups (Crouse & Trusheim, 1988; Santelices & Wilson, 2010). The findings also align with Geiser and Santelices (2007), earlier study that determined when students are ranked by college entrance exams scores that racial stratification is more obvious and underrepresented race/ethnic groups represent nearly 50% of the lowest scores of all the scores in the study.

FYGPA Comparison by Race/Ethnicity

The second research question inquired as to whether there was a difference between a student's racial/ethnic identification and the student's GPA at the end of the second semester at SU. The findings reflect a difference between the student's racial/ethnic identification and the student's GPA at the end of the second semester of full-time enrollment. White students (M = 2.98) had the highest mean FYGPA as compared to Black (M = 2.40), Latino (M = 2.86), and Native American (M = 2.80) students overall and the only racial/ethnic group to have a FYGPA mean above the overall mean for all races (M = 2.93). Black students lagged behind with the lowest FYGPA mean.

The mean FYGPA of Black students was significantly different from Native American, Latino, and White students. Native American students were the only other racial/ethnic group whose FYGPA mean was significantly different from White students. These finding suggest Black students lag behind academically during their first year of college in that their FYGPA mean were lower than all other racial/ethnic groups. Native American students' FYGPA mean lags behind that of White students. These findings are specific to SU and may vary from one institution to another.

Relationship of the Current Study to Previous Research

This section highlights connections between the present study's findings and the published literature on this topic. The section begins with a review of the relationship between race-neutral percentage plan admissions options and affirmative action. Next is a discussion of the prevalence of test biases toward low-income, non-native speakers, limited availability of test preparation opportunities, and race/ethnic groups in college

entrance exams, as explored in the findings at SU, followed by a review of the related literature. This section concludes by connecting the findings of current research specific to FYGPA disparities as it relates to race/ethnicity.

Race-neutral Percentage Plan Admissions Options and Affirmative Action

Affirmative action in higher education has remained a controversial topic over the years. Many institutions across the United States transitioned to race-neutral percentage plan admissions options because of the implementation of state propositions and questions in the late 1990s (Kahlenberg, 2003; Long, 2004; Moses et al., 2009; Niu, Tienda, & Cortes, 2006). The findings in this study demonstrate that underrepresented Black students benefit from the race-neutral percentage plan admissions option, being in the top third of high school graduating class and with a 3.0 or better HSGPA. SU's Brown option is a race-neutral percentage plan admissions option in that it does not actively consider race in the admissions decision making process.

These findings contradict previous studies which have demonstrated the implementation of race-neutral percentage plan admissions decreases the likelihood of underrepresented students' admissibility (Long & Tienda, 2008). In contrast to a previous study (Long & Tienda, 2008), more Blacks were admitted to State University by the percentage plan admissions options. Additionally, Long and Tienda's (2008) study determined Native American and Black students were more likely than White students to be admitted by race-based rather than race-neutral percentage plan admissions options. The current study reveals over half the Latino and Native American students were admitted to SU by the Orange admissions option which only considered college entrance exam scores.

The race-neutral percentage plan admissions option is beneficial for Black students and provides an opportunity for admissions to the university as suggested by this study. This finding differs from the current research available related to race-neutral percentage plan admissions. Following the implementation of various race-neutral admissions percentage plans at institutions, a considerable amount of research focused on the impact of race-neutral percentage plan admissions practices (Bucks, 2004; Carneval & Rose, 2003; Hinrichs, 2012; Long, 2004; Long & Tienda, 2008; Moses et al., 2009; University of California-Berkeley, 2009).

There is limited discussion about the impact of the race-neutral percentage plan admissions options for students ranked in the top third of their high school graduating class with a 3.0 or higher HSGPA. Previous studies concluded that percentage plan admissions decreased Black students admission to college (Long & Tienda, 2008; Moses et al., 2009; University of California-Berkely, 2009). Existing literature relates to specific race-neutral percentage plan admissions practices highlighting a 52% decrease in the number of Black and Latino students following the implementation of race-neutral percentage plan admissions at UC-Berkeley where students in the top four percent of their graduating class are automatically admitted (Moses et al., 2009; University of California-Berkeley, 2009). At both TAMU and TTU between 1998 and 2002, Black students not meeting the top 10% criteria were less likely to be accepted compared to White applicants (Long & Tienda, 2008). At UT the Black students fell by two percent in 1997 for students not admissible based on the 10% criteria (Long & Tienda, 2008; Moses et al, 2009). Washington State University experienced a decrease in Black and Latino students' when their race-neutral top ten percent plan was implemented (Moses et al.,

2009). Moses et al.'s (2009) study supports the argument that Black students suffer the greatest loss in admissions when the Florida Talented 20 Program, another race-neutral percentage plan, was instituted.

In contrast to previous studies, findings in this study suggest that Black students applying for admissions to SU actually benefitted from the race-neutral percentage plan admissions option. Native American and Latino students differed from Black students in that over half of the Native American and Latino students were admitted by college entrance exam score. This study adds to the literature by demonstrating that race-neutral percentage plans admissions options may in some cases benefit Black students and suggesting that other underrepresented racial/ethnic groups benefit from the college entrance exam only admissions option. The findings of the current study are specific to a particular university and the results may vary at other institutions with a different distribution of racial/ethnic categories and admissions options. Further study seems to be warranted to determine the degree to which these findings can be generalized to the larger population of students of color applying for admission to college.

Test Biases in College Entrance Exams Scores

College entrance exams continue to receive strong critique, yet colleges continue to use the ACT and SAT to guide admissions decisions. A variety of criticisms exist including biases toward low-income students (Rosner, 2012), availability of test preparation opportunities (Buchman et al., 2010), college entrance exams over-predicting non-native speakers FYGPA (College Board, 2005; Ramist, Lewis, & McCamley-Jenkins, 1994; Zwick & Schlemer, 2004; Zwick & Sklar, 2005), and racial/ethnic biases (Geiser & Santelices, 2007; NACAC, 2008; Ronney & Schaffer, 1998; Rosner, 2012;

Santelices & Wilson, 2010). The findings in the current study also reflect racial/ethnic group biases in college entrance exams scores, in which Black students had the fewest admitted by the option that only considers college entrance exam score. Furthermore, the present findings indicate that more Black students were admitted by the assured admissions option that does not consider college entrance exam.

Institutions ranging in size and mission have identified college entrance exams as a major barrier for entry to thousands of qualified, first generation, low-income, and underrepresented students (Geiser & Santelices, 2007; Ronney & Schaffer, 1998; Rosner, 2012). Hilliard (1990) and Carty-Bennia (1989) argue that college entrance exams are unfair and a disadvantage for underrepresented groups because college entrance exams are culturally and educationally inappropriate toward underrepresented groups in which the tests are inaccurate in assessing their potential**.** In the current study, Native American and Latino students have the largest amount of students within their racial/ethnic category admitted by the admissions option which only requires a college entrance exam score. The present study contributes to the literature by demonstrating that Black students were disproportionately the largest racial/ethnic group admitted holistically/alternatively compared to all other races. Few studies have examined admissions options effectiveness for entry and access by race, as was done in this study. When colleges overemphasize college entrance exams for admissions it amplifies disparities among underrepresented students and creates a barrier for expanding access to college (Geiser & Santelices, 2007; NACAC, 2008).

The current study supports the literature in that the admissions options that only consider college entrance exam score are a barrier for access to Black students

acceptance. The current study suggests Latino and Native American students possess the academic requirements for acceptance by the admissions options that only consider college entrance exam score. Black students attracted to this particular university lack the academic criteria for the admissions option that only considers college entrance exam scores. White students who apply for admissions to SU more frequently meet the college entrance exam score admissions options requirement, indicating that college entrance exams are not an admission barrier for that racial/ethnic group.

FYGPA and Race/Ethnicity

Many studies have examined predictors of college GPA and success (Geiser & Santelics, 2007; Korbin & Michel, 2006; Noble & Sawyer, 2004; Sackett, Kuncel, Beatty, Rigdon, Shen, & Kiger, 2012; Zwick & Schlemer, 2004; Zwick & Sklar, 2005). The current study adds to the literature by specifically examining FYGPA means by race. The findings of the study support current literature in which Black students lag behind other racial/ethnic groups FYGPA means and struggle to succeed academically as compared to the other races.

Although the current study only compared FYGPA means among different race/ethnic groups, scholarship existed that explains factors that contribute to students' FYGPA. For example, Culpepper and Davenport (2009) examined predictors of students' success, in which Black and White students had comparable college entrance exam scores and HSGPA's and Black students were expected to earn lower FYGPAs. Another study determined high school quality influences race/ethnic inequality in postsecondary academic success (Fletcher & Tienda, 2010). Additionally students' first year academic

performance can be impacted and improved when underrepresented students have large high school cohort groups that attend the same university (Fletcher & Tienda, 2010).

Other existing literature (Culpepper & Davenport, 2009) reinforces predictors of students' success such as when Black and White students having comparable college entrance exam scores and HSGPA's Black students are expected to earn lower FYGPAs. The current study does not differentiate the students by college entrance exam score or HSGPA. The findings of the current study suggest Black students had lower FYGPA means compared to White students as did the Culpepper and Davenport (2009) study when considering prior college academic achievement. Culpepper and Davenport (2009) concluded it is likely Black students' high school educational quality is a factor related to their under-preparedness for college in which it leads HSGPA's to predict Black students' college grades differently as compared to other race/ethnic groups.

Fletcher and Tienda's (2010) findings indicate that high school quality contributes to racial/ethnic inequality in postsecondary academic success. Although the current study did not examine the high school quality of students and its influence on academic success, if it is studied at other institutions it may add to the literature. Other studies (Bridgeman et al., 2000; Culpepper & Davenport, 2009; Noble, 2003) reinforce the finding of the current study in that the studies distinguished Black students were predicted to earn lower college GPA's.

Underrepresented students' first year academic performance improves when underrepresented students have large high school cohort groups that attend the same university (Fletcher, & Tienda, 2009). Black students in particular benefited more from having a larger high school cohort as opposed to White students. These findings are

specific to a particular institution. The current study compares FYGPA means and race/ethnicity and supports the scholarship that explores predicting students' success in college in which the literature concludes Black students would lag behind their peers from other race/ethnic groups based on pre-college success academic indicators (HSGPA, ACT, or SAT score), as compared to White students demonstrating potential to be successful in college based on pre-college academic indicators.

Recommendations for Research, Policy, and Practice

Because SU does not have highly selective admissions policies, an overwhelming number of students apply for admissions to the university during their senior year of high school. The previous section connected race-neutral percentage plan admissions options and affirmative action and discussed how the findings of the study add to the scholarship in that race-neutral percentage plan admissions benefit Black students. The previous section also examined how the current study's findings relate to the literature in that test biases in college entrance exams score exist among race/ethnic groups. The previous section concluded by examining the relationship to existing literature related to FYGPA and race/ethnicity groups. Based on these overarching themes connecting the findings in this study to previous research, specific recommendations for research, policy, and practice are warranted.

Recommendations for Research

Research should focus more attention on exploring race-neutral percentage plan admissions options, as they are currently being implemented. This study provides evidence that a race-neutral percentage plan admissions option benefits Black students. More empirical work needs to focus on whether the race-neutral percentage plan

admission results were specific to institutional type because results may vary by institution. The results of this study varied from previous scholarship in that race-neutral percentage plan admissions benefited Black students, which is contrary to the findings from institutions similar to SU's (Bucks, 2004; Long & Tienda, 2008). Previous scholarship concluded fewer underrepresented race/ethnic groups were admitted by the race-neutral percentage plan admissions, which may be caused by few underrepresented students being in the top 10% of their high school graduating class (Hinrichs, 2012; Long, 2004). Additional exploration related to the race-neutral top third percentage plan may demonstrate the findings of the current study are generalizable beyond State University.

Additional research should investigate students' social-economic status (SES), parental education, and occupation as it relates to race-neutral percentage plan admissions options of students ranked in the top third of their high school graduating class with a 3.0 or higher HSGPA and college entrance exam scores which are both used in the college admissions process. The current study examines race/ethnicity and admissions options only. Considering the historic context of race-neutral percentage plan admissions options, the current literature explores a race-neutral percentage plan admissions option of being in the top ten percent of high school graduating class with a 3.0 or higher HSGPA as being preferential to students from particular SES groups, parental education backgrounds, and occupations. Earlier research determined that college entrance exam score gaps are a result from differences in parental income (Alon, 2009), parental education, and wealth (Rosner, 2012). Additional exploration in this area will determine

whether the race-neutral percentage plan of being ranked in the top third of a students graduating class is preferential to a students' SES, parental income and education.

Based on the findings, it also recommended that scholars further examine the impact of holistic admissions practices at large public institutions. Much of the literature on holistic admissions practices is specific to small private highly selective schools; researchers has provided minimal insight on realistic holistic admissions practices at large public institutions. Additional exploration in this area would determine whether broader holistic admissions review is realistic at large public institutions. If it is, how can broader holistic admissions practices be accomplished and overcome the typical barriers of limited financial resources and time to evaluate thousands of applicants?

Higher education administrators should also examine the information the university currently collects related to the high school entering students attended, analyze the information to determine whether high school attended impacts a student's FYGPA, and revise appropriately. The current study did not consider the impact of a student's high school. Fletcher and Tienda (2010) studied the impact of high school attended at four postsecondary schools in Texas and concluded high school attended impacts college GPA. It cannot be assumed similar findings will occur in in this particular state and additional research will determine whether the findings are consistent from one state to another.

The current study did not examine the impact of social media, although additional exploration may provide an additional promising avenue for empirical study. With the recent evolution of social media and technology, the existing scholarship reveals it influences a college student's success in different ways. When technological programs

and Twitter are integrated into college students' classroom experiences they positively influences the academic success of college students (Annetta, Minogue, Holmes, & Cheng, 2009; King & Robinson, 2009). When Facebook was studied as a leisure activity for college students it was found to negatively influence students' academic success. The existing literature demonstrates that multiple factors can impact and play an integral role when predicting or examining students' academic success. The current literature related to social media and its impact when used as an educational tool or used for student social communication is minimal. Further research in this area would determine if the current literature findings are consistent at other institutions.

Recommendations for Policy from State Governing Boards

State governing boards should re-evaluate admissions policies for state institutions. Many Black students were disproportionally admitted by the admissions option that does not require a college entrance exam score, although over 50% of all other race/ethnic were admitted by the college entrance exam score only option. The re-evaluation of admissions options should aim to develop admissions options with fewer biases toward certain racial/ethnic groups and guide universities admissions practices. The literature aligns with the findings in that college entrance exams scores are biased toward Black students. Previous studies concluded correlations exist between test biases associated with college entrance exams and race/ethnicity (Geiser & Santelices, 2007; NACAC, 2008; Rosner 2012; Santelices & Wilson, 2010).

Re-evaluation is justifiable in the state where SU is located because of the findings in the study. The study suggests that this state is not unique, and therefore it would be appropriate to extend this recommendation to other states with similar

admissions policy and institutional characteristic. Admissions criteria may still vary by institution and college entrances exams are used in various forms, but the results of the study align with existing literature in that biases exist in college entrance exams toward race/ethnic groups. The trend of biases in admissions criteria due to college entrance exam requirement may exist at other institutions and re-evaluation will provide an opportunity for other state governing boards to determine whether admissions options warrant adopting new admissions options. New admissions options would provide an opportunity to eliminate disparities and access barriers that some race/ethnic groups encounter when applying for admissions to a post-secondary institution.

Recommendations for Practice by University Administrators

As this study raises concerns about inadvertent biases in admissions options toward some racial/ethnic groups and suggests that the state governing board of SU developing new admissions policies, the university must also examine its admissions practices. SU must communicate the new admissions policy practices to university faculty and staff, high schools, prospective students, and parents. Changes to practice that do not rely on the action of external agencies/authorities are also warranted.

University administrators must re-evaluate how admissions options are communicated and presented in marketing publications. This is important for prospective Black students, as this study suggests fewer Blacks, compared to all other races, were admitted by admissions option that considered college entrance exam score. The admissions office must determine how admissions options can be outlined in oral presentations and marketing publications to avoid students with low college entrance exam scores self-selecting out of the SU application process, based on an assumption that

they are inadmissible due to low entrance exam scores. It is important that admissions marketing publications avoid presenting numbered admission options in a ranked order to prevent students from assuming they are admitted by lower or less significant admissions options. An example of how the admissions options may be presented in marking publications are as follows: Brown, Silver, Gray, and Orange. Changing the presentation of the admissions options in marketing publications will also prevent students from viewing the admissions option that only considers college entrance exam first and deciding not to apply for admission because they are overwhelmed with the college entrance exam score requirement.

State University's admissions office should explore new recruitment outreach efforts at specific high schools to students in specific groups, especially Black students, and differentiate the messaging toward that group of students. The findings of the research suggest that Blacks students are disproportionately admitted by the Brown option, the race-neutral percentage plan admission option. Fletcher and Tienda (2009) concluded when underrepresented students attend a particular institution with a larger high school group, those students benefited more academically compared to White students. By hosting admissions recruitment events for specific groups of students and detailing the messaging to cater to that group of students will allow students to be knowledgeable about the four different admission options and create the opportunity to recruit a large group of underrepresents students from specific high schools. Further, tailoring the presentation of admissions options to specific audiences in a manner applicable to that cohort of students, it will prevent students from self-selecting out of the SU application process. Hosting these programs in locations convenient to the specific

group of students will make the program easily accessible to students. This may include using a high school that is specific to the cohort of students the university is recruiting.

Teachers, parents, mentors, community leaders, and university representatives should encourage Black students to take advantage of college entrance exam test preparation opportunities available at their high school and within the community. If parents are willing to sacrifice financially, it is recommended that Black students consider enrolling in the test preparation courses. College entrance exam scores are used as predictors of success in college. More specifically, the ACT is separated into four different subjects. As students study for the ACT they will improve comprehension and understanding in math, reading, science, and social science.

Finally, SU admissions offices should review whether or not students first year academic performance improves when underrepresented students have a large high school cohort attend the university. Fletcher and Tienda (2009) explored entering freshmen's first year academic performance and whether the number of students who graduate from the same high school impacted first year academic performance at the University of Texas (UT) at Austin. The results from the study implied that students who attended UT with a higher number of graduates impacted academic performance, especially Black students. Upon SU completing similar research, it may influence how the institution caters toward different students' needs to better serve the students during their first year of college.

Summary

Many trends within college admissions are consistent over the years. Institutions continue to review their college admissions applications and best practices for college

admissions requirements to attract students who are the best "fit" for their university and who will be successfully retained to graduation. From year to year, issues related to affirmation action continue to arise and the future of affirmative action remains constantly in question. Criticism of college entrance exams biases toward specific racial/ethnic groups also continues. Research and policy work in these areas must continue. America's higher education is ever changing and researchers and practitioners must meet the needs to remain globally competitive.

This study was an effort to add to the continued investigation of higher education practices by analyzing the difference between students' success indicators, how students are admitted to a large public institution in Oklahoma, and FYGPA in college, especially among underrepresented students. The results of the study identified an association between students' race/ethnicity and the admissions option through which the student was admitted to SU. Black students were notably disadvantaged in that fewer students being admitted by the admissions option that only considered a college entrance exam score as compared to other racial/ethnic categories. The study also determined a difference in mean between the FYGPAs reported by students from different racial/ethnic groups. Black students' FYGPA mean lagged behind all other racial/ethnic groups and the means were significantly different among all groups. These findings contribute to the current literature and warrant efforts for additional exploration.

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APPENDICES

Oklahoma State University Institutional Review Board

Request for Determination of Non-Research or Non-Human Subject

C. Describe the subject population/type of data/specimens to be studied. (See instructions for guidance)

Subjects are students admitted to OSU as first-time freshmen Fall 2009 and Fall 2010. Data that will be used for the purpose of this study is from the student's high school transcripts that was entered into State University's Student Information System. The data will be requested for retrieval from Institutional Research and Information Management.

4. Determination of "Research".

45 CFR 46.102(**d**)**:** *Research* means a systematic investigation, including research development, testing and evaluation, designed to develop or contribute to generalizable knowledge. Activities which meet this definition constitute research for purposes of this policy whether or not they are conducted or supported under a program which is considered research for other purposes.

One of the following must be "no" to qualify as "non-research":

A. Will the data/specimen(s) be obtained in a systematic manner?
☐ No X Yes

B. Will the intent of the data/specimen collection be for the purpose of contributing to generalizable knowledge (the results (or conclusions) of the activity are intended to be extended beyond a single individual or an internal program, e.g., publications or presentations)?
☐ No X Yes

5. Determination of "Human Subject".

45 CFR 46.102(f): *Human subject* means a living individual about whom an investigator (whether professional or student) conducting research obtains: (1) data through intervention or interaction with the individual or (2) identifiable private information. Intervention includes both physical procedures by which data are gathered (for example venipuncture) and manipulations of the subject or the subject's environment that are performed for research purposes. Interaction includes communication or interpersonal contact between investigator and subject. Private information includes information about behavior that occurs in a context in which an individual can reasonably expect that no observation or recording is taking place, and information which has been provided for specific purposes by an individual and which the individual can reasonably expect will not be made public (for example, a medical record). Private information must be individually identifiable (i.e., the identity of the subject is or may be ascertained by the investigator or associated with the information) in order for obtaining the information to constitute research involving human subjects.

A. Does the research involve obtaining information about living individuals?
☐ No X Yes
If no, then research does not involve human subjects, no other information is required.
If yes, proceed to the following questions.

All of the following must be "no" to qualify as "non-human subject":

B. Does the study involve intervention or interaction with a "human subject"?
X No ☐ Yes

C. Does the study involve access to identifiable private information?
X No ☐ Yes

D. Are data/specimens received by the Investigator with identifiable private information?
X No ☐ Yes

Oklahoma State University Institutional Review Board

Request for Determination of Non-Research or Non-Human Subject

E. Are the data/specimen(s) coded such that a link exists that could allow the data/specimen(s) to be re-identified?
X No ☐ Yes
If "Yes," is there a written agreement that prohibits the PI and his/her staff access to the link?
☐ No ☐ Yes

6. **Signatures**

Signature of PI _____ **Date** 3/28/13

Signature of Faculty Advisor (If PI is a student) _____ **Date** 3/28/13

☒ Based on the information provided, the OSU-Stillwater IRB has determined that this project **does not** qualify as human subject research as defined in 45 CFR 46.102(d) and (f) and **is not subject to oversight by the OSU IRB.**

☐ Based on the information provided, the OSU-Stillwater IRB has determined that this research **does** qualify as human subject research and **submission of an application for review by the IRB is required.**

Shelli M. Kennison
Dr. Shelli Kennison, IRB Chair

4-2-13
Date

Request for Data Email

Hello Dr. Hawkins,

Thank you for meeting with me last semester and for assisting with me reaching me educational aspirations. I recently had my proposal meeting and am ready to request data. The design of my study is a quantitative study examining the difference between undergraduate admission options and first year college grades at the end of the students 2nd semester in college. The independent variables of the study consist of the undergraduate admissions options and the dependent variable is first-year college grade point average. I am interested in first-time full-time freshmen during the 2009-2010 and 2010-2011 academic years. The de-identified data needed to complete the study for my thesis includes the following:

- How the student was admitted to the university
- ACT/SAT score
- High school unweighted grade point average
- High school 15-unit core grade point average
- Rank in class
- Class size
- First-year college grade point average
- Academic year student was enrolled at the university
- Age
- Attend in-state vs. out-of-state high school
- College credits earned per semester/year
- College academic major
- First-generation
- Gender
- Race

VITA

Deleanor Alexandrea Kirkpatrick

Candidate for the Degree of

Master of Science

Thesis: A STUDY OF ASSOCIATION OF RACE AND COLLEGE ADMISSIONS OPTIONS AND DIFFERENCE IN FIRST YEAR COLLEGE GRADE POINT AVERAGE BY RACE

Major Field: Educational Leadership – Higher Education

Biographical:

Education:

Completed the requirements for the Bachelor of Science in Nutrition at Oklahoma State University, Stillwater, Oklahoma in May 2009.
Completed the requirements for the Master of Science in Educational Leadership at Oklahoma State University, Stillwater, Oklahoma in June, 2013.

Experience:

Currently work as an admission counselor for Oklahoma State University Stillwater, recruiting students in the Oklahoma City Metro area. While in this role I have worked on various projects and task teams including Panorama and the Test-Optional Task team. Prior to working as an admission counselor I was a graduate assistant for Oklahoma State Athletics Strength and Conditioning (Strength and Conditioning Coach Certified) and advisor for the Student Athlete Advisory Committee (SAAC).

Professional Memberships:

Golden Key Member
National Association for College Admission Counselors (NACAC)
National Association of Collegiate Strength and Conditioning Coaches Association (CSCCa)
Oklahoma College Day/Night Coordinating Committee (OCD/NCC)